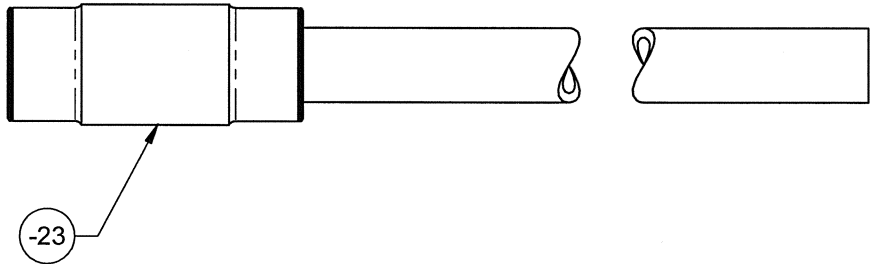
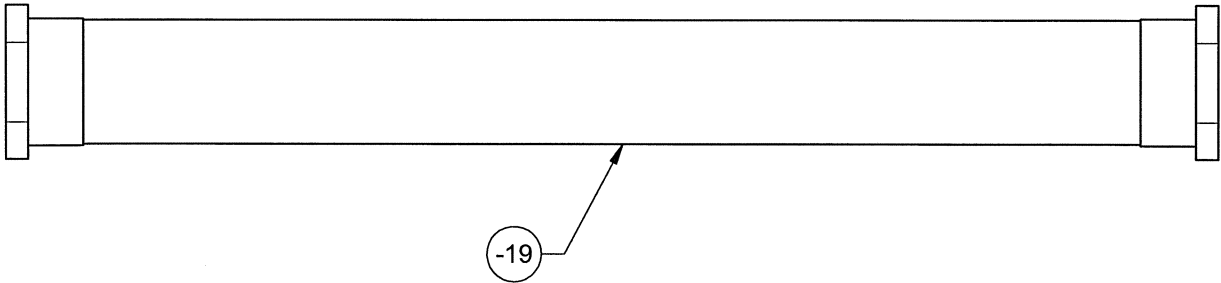


ITEM #	QTY	PART #	PART TITLE
-19	1	RB DB3182-19	MAIN TRANSMISSION DRAIN TOOL QUILL ASSEMBLY
-23	1	RB DB3182-23	MAIN TRANSMISSION DRAIN TOOL HOSE ASSEMBLY



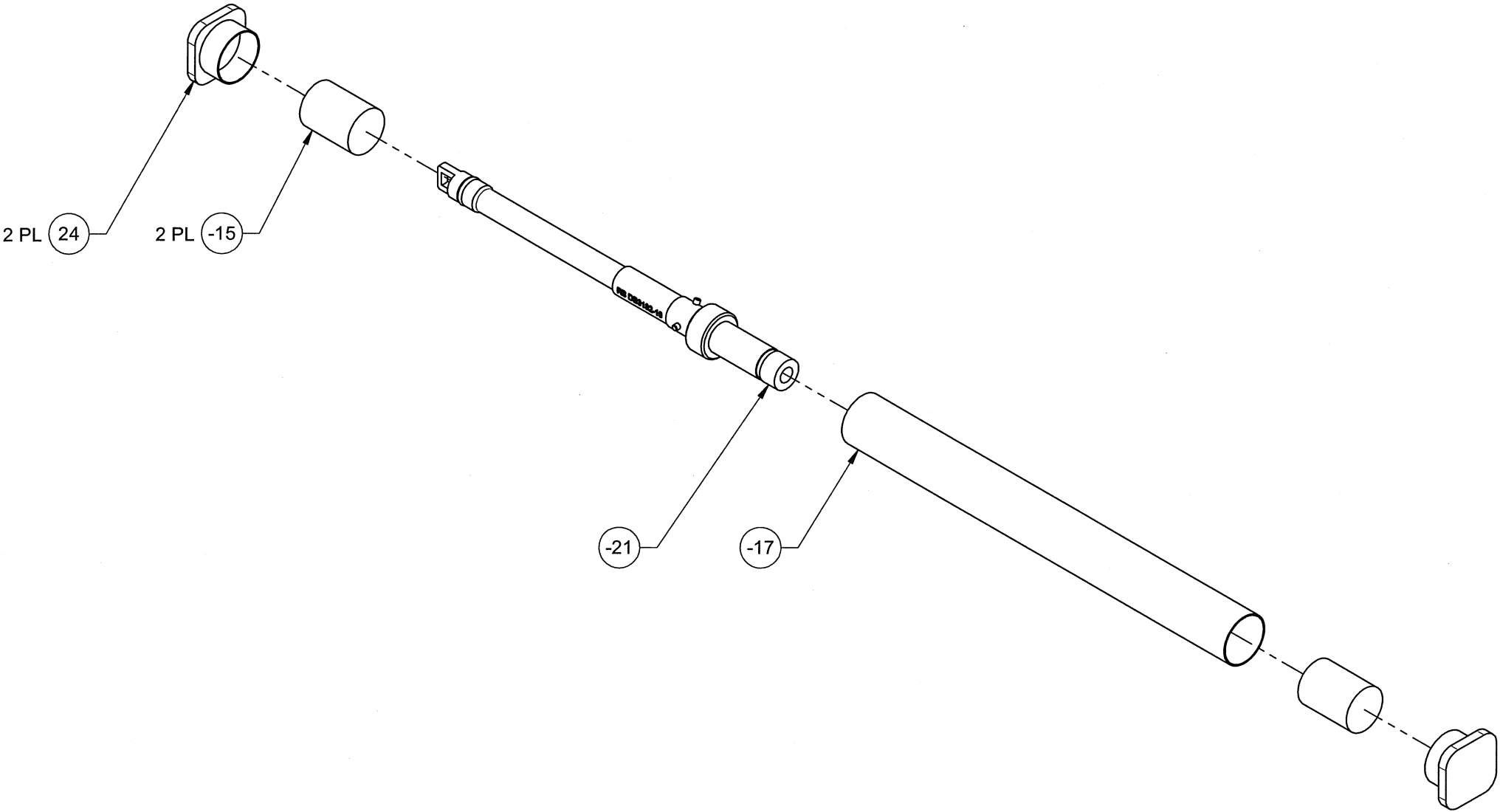
RB DB3182 MAIN TRANSMISSION DRAIN TOOL

8

NOTES:
1) MATERIAL: N/A
2) HEAT TREAT: N/A
3) FINISH: N/A
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) IDENTIFICATION: N/A
7) ASSEMBLE AS SHOWN
8) PLACE ITEM -23 COILED INTO A TIGHT FITTING SEALED PLASTIC BAG WITH ITEM -19

F	SEE PREVIOUS REVISION FOR MORE INFORMATION UPDATED DRAWING TEMPLATE ADDED ITEMS -19, -21, -23 -1 ADDED 0.02 X 45.0° CMF DIM. HOLE DEPTH DIM WAS 4.05 MAX IS 4.050/4.045 -3 ADDED 0.03 X 45.0° CMF 2 PL DIM. HOLE DIM WAS ϕ .0937/.0933 IS ϕ 0.0938 -0.0002/-0.0008		19-629	KPT
	REV.	DESCRIPTION	ECN #	BY
DESIGN	KPT	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	KPT			
CHECKED	MBB	TOOL PART #	REV. F	
MFG. APPR.	JFC	RB DB3182	SHEET 1 OF 8	
APPROVED		TITLE	SCALE	
DATE 3/7/2019		MAIN TRANSMISSION DRAIN TOOL	NTS	
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ITEM #	QTY	PART #	PART TITLE
-15	2	RB DB3182-15	FOAM
-17	1	RB DB3182-17	TUBE
-21	1	RB DB3182-21	QUILL ASSEMBLY
24	2	McMaster#2044T65 OR EQUIV.	VINYL END CAP FOR 0.79" ID. SHIPPING TUBE

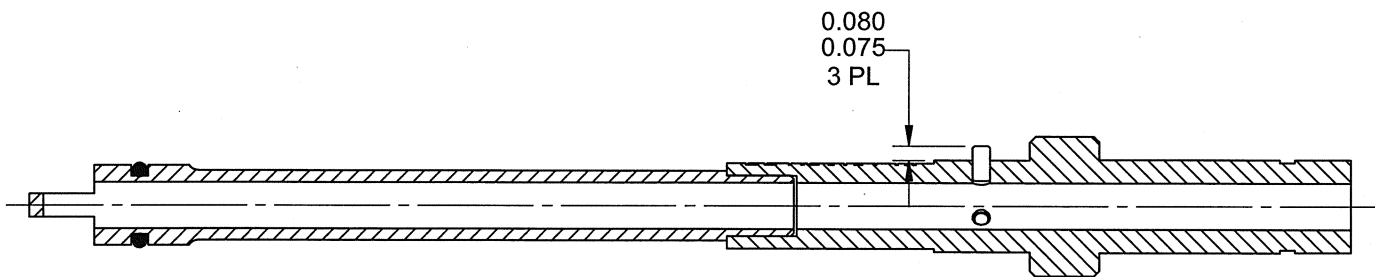
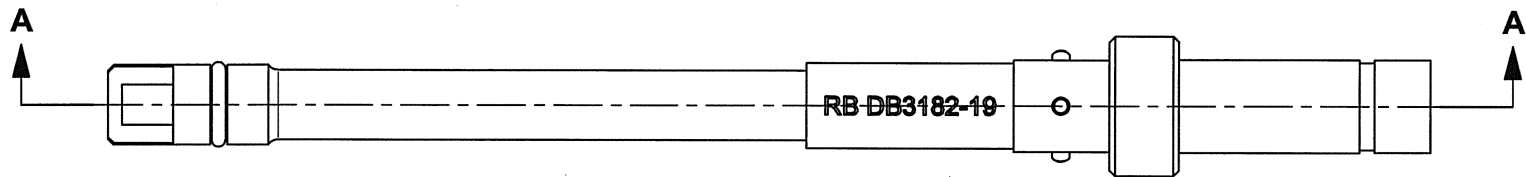


RB DB3182-19 MAIN TRANSMISSION DRAIN TOOL QUILL ASSEMBLY

NOTES:
1) MATERIAL: N/A
2) HEAT TREAT: N/A
3) FINISH: N/A
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) IDENTIFICATION: N/A
7) ASSEMBLE AS SHOWN

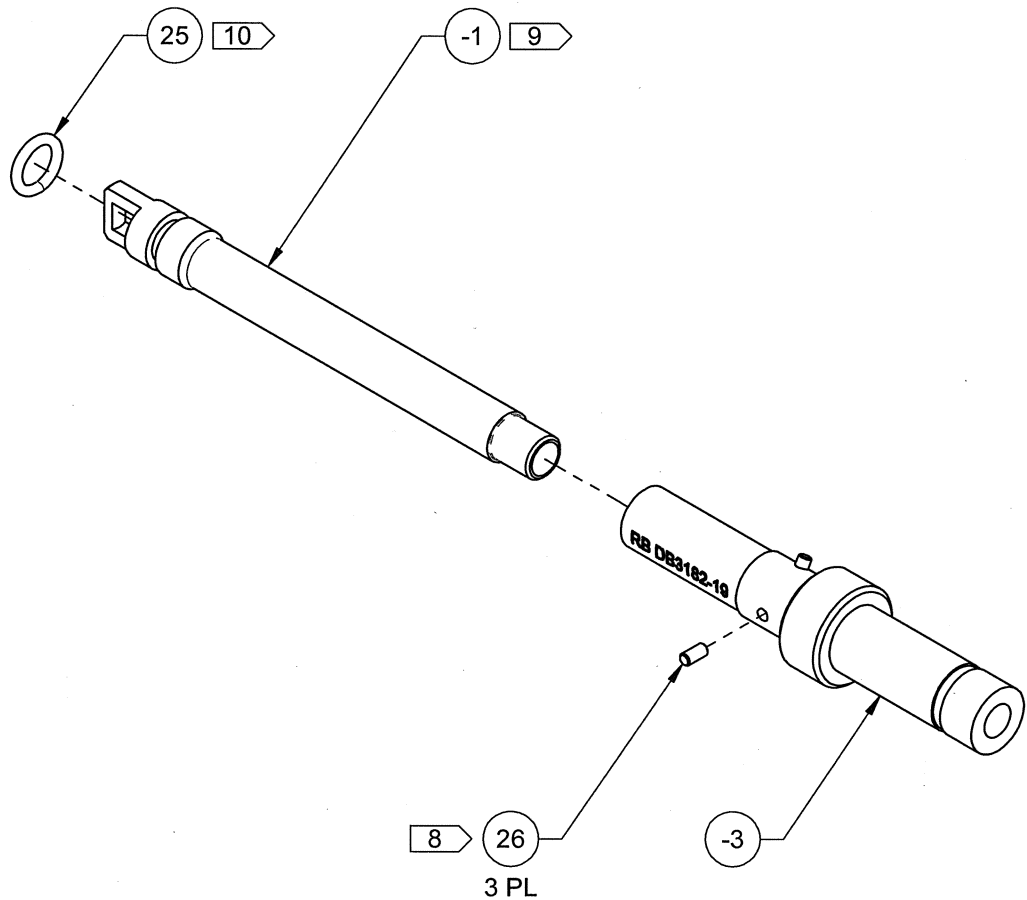
DESIGN	KPT	DART AEROSPACE LTD	
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MBB	TOOL PART #	REV. F
MFG. APPR.	JFC	RB DB3182	SHEET 2 OF 8
APPROVED		TITLE	SCALE
DATE	3/7/2019	MAIN TRANSMISSION DRAIN TOOL	NTS
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ITEM #	QTY	PART #	PART TITLE
-1	1	RB DB3182-1	EXTENSION
-3	1	RB DB3182-3	QUILL
25	1	McMaster#9263K642 OR EQUIV.	VITON O-RING 7.8 mm ID. X 11.6 mm OD. X 1.9 mm WD.
26	3	McMaster#98380A433 OR EQUIV.	416 SS DOWEL PIN 3/32" DIA. X 3/16" LG.



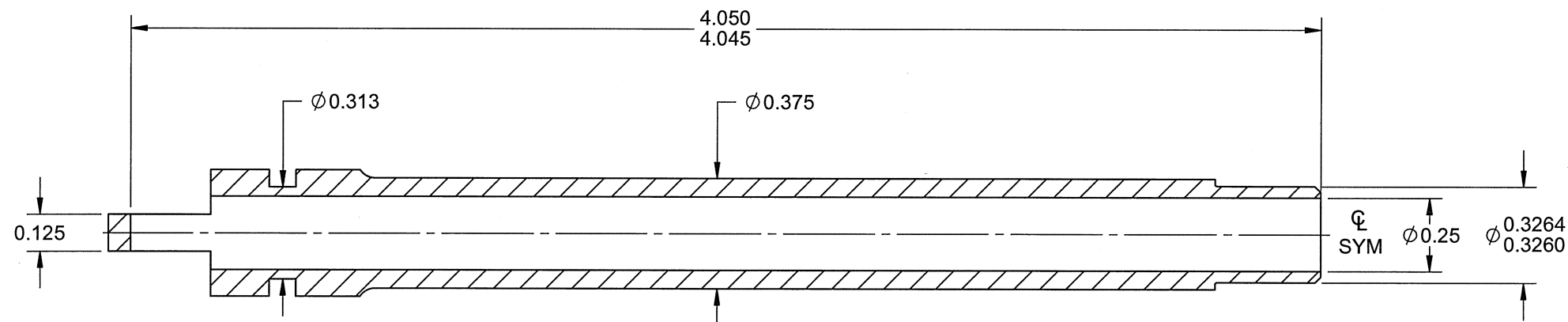
SECTION A-A

RB DB3182-21 QUILL ASSEMBLY

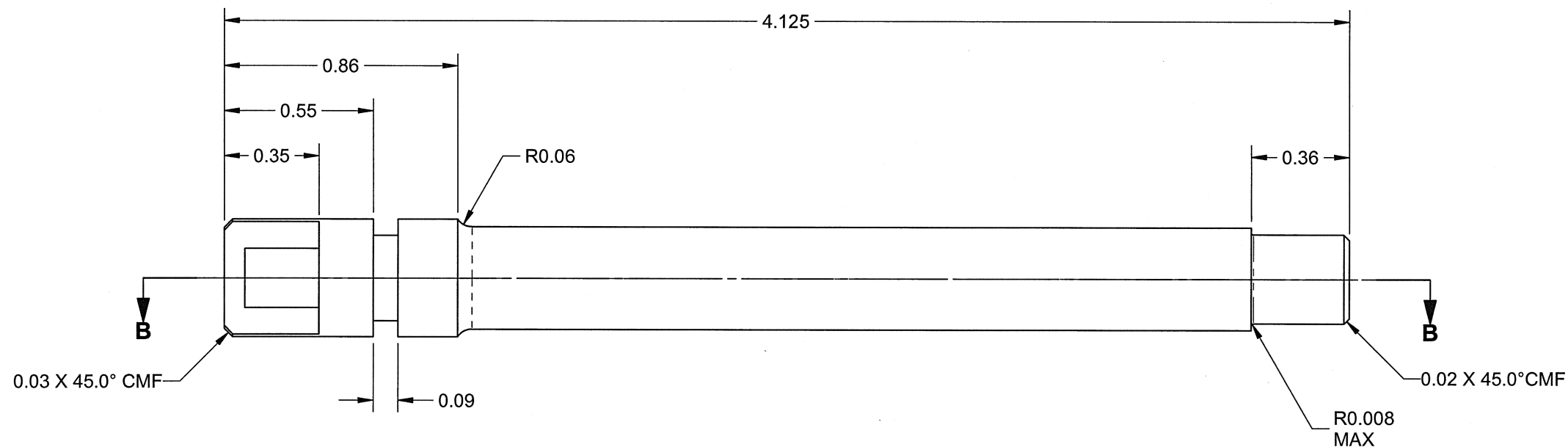
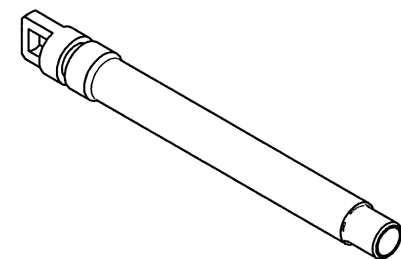


- NOTES:
- 1) MATERIAL: N/A
 - 2) HEAT TREAT: N/A
 - 3) FINISH: N/A
 - 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
 - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 6) IDENTIFICATION: N/A
 - 7) ASSEMBLE AS SHOWN
 - 8) APPLY RETAINING COMPOUND LOCTITE 620 OR EQUIVALENT ON MATING SURFACES
THEN PRESS FIT ITEM 26 WITH ITEM -3, AND REMOVE EXCESS
 - 9) APPLY RETAINING COMPOUND LOCTITE 620 OR EQUIVALENT ON MATING SURFACES
THEN PRESS FIT ITEM -1 WITH ITEM -3, AND REMOVE EXCESS
 - 10) APPLY MOLYKOTE 55 OR EQUIVALENT ON ITEM 25 THEN ASSEMBLE WITH ITEM -1, AND REMOVE EXCESS

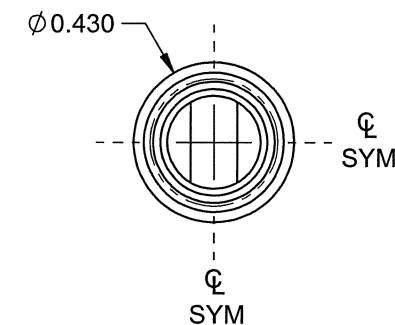
DESIGN	KPT	DART AEROSPACE LTD	
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MBB	TOOL PART #	REV. F
MFG. APPR.	JFC	RB DB3182	SHEET 3 OF 8
APPROVED	WJP	TITLE	SCALE
		MAIN TRANSMISSION DRAIN TOOL	NTS
DATE	3/7/2019	COPYRIGHT © 2019 BY DART AEROSPACE LTD	
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SECTION B-B



RB DB3182-1 EXTENSION



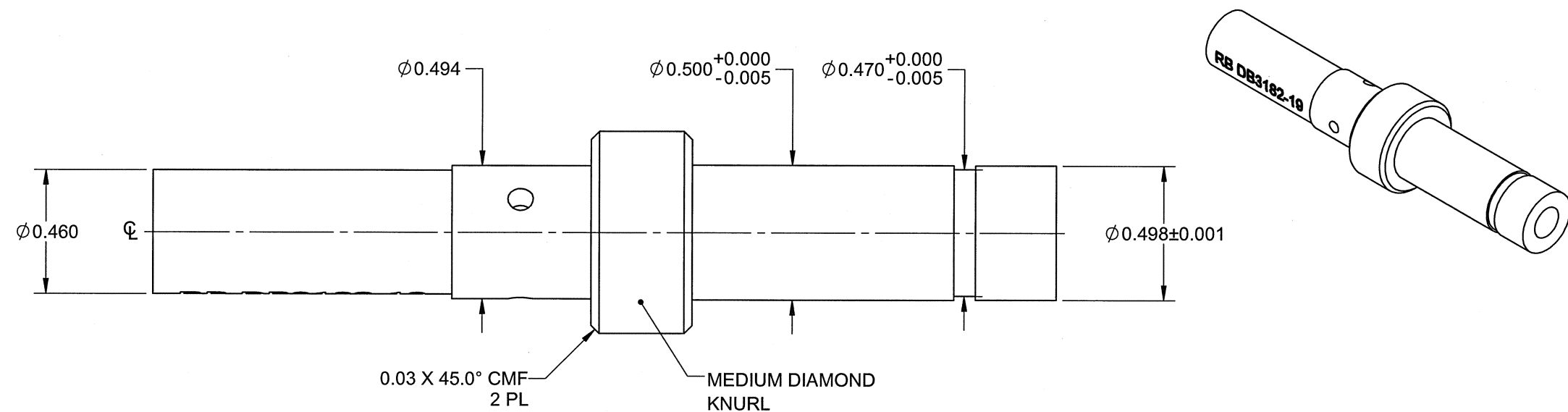
- NOTES:
- 1) MATERIAL: 6061-T6 / 7075-T6
 - 2) HEAT TREAT: N/A
 - 3) FINISH: ANODIZE RED PER MIL-A-8625 TYPE 2 CLASS 2
 - 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
 - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 6) REMOVE ALL SHARP EDGES AND BURRS
 - 7) IDENTIFICATION: N/A

DESIGN	KPT	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	KPT		
CHECKED	MBB	TOOL PART #	REV. F
MFG. APPR.	JFC	RB DB3182	SHEET 4 OF 8
APPROVED	<i>VH</i>	TITLE	SCALE
DATE	3/7/2019	MAIN TRANSMISSION DRAIN TOOL	NTS
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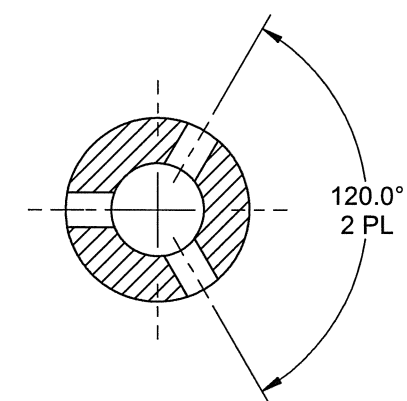
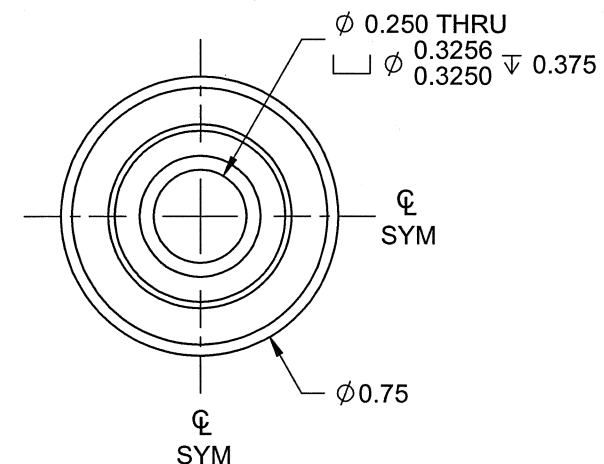
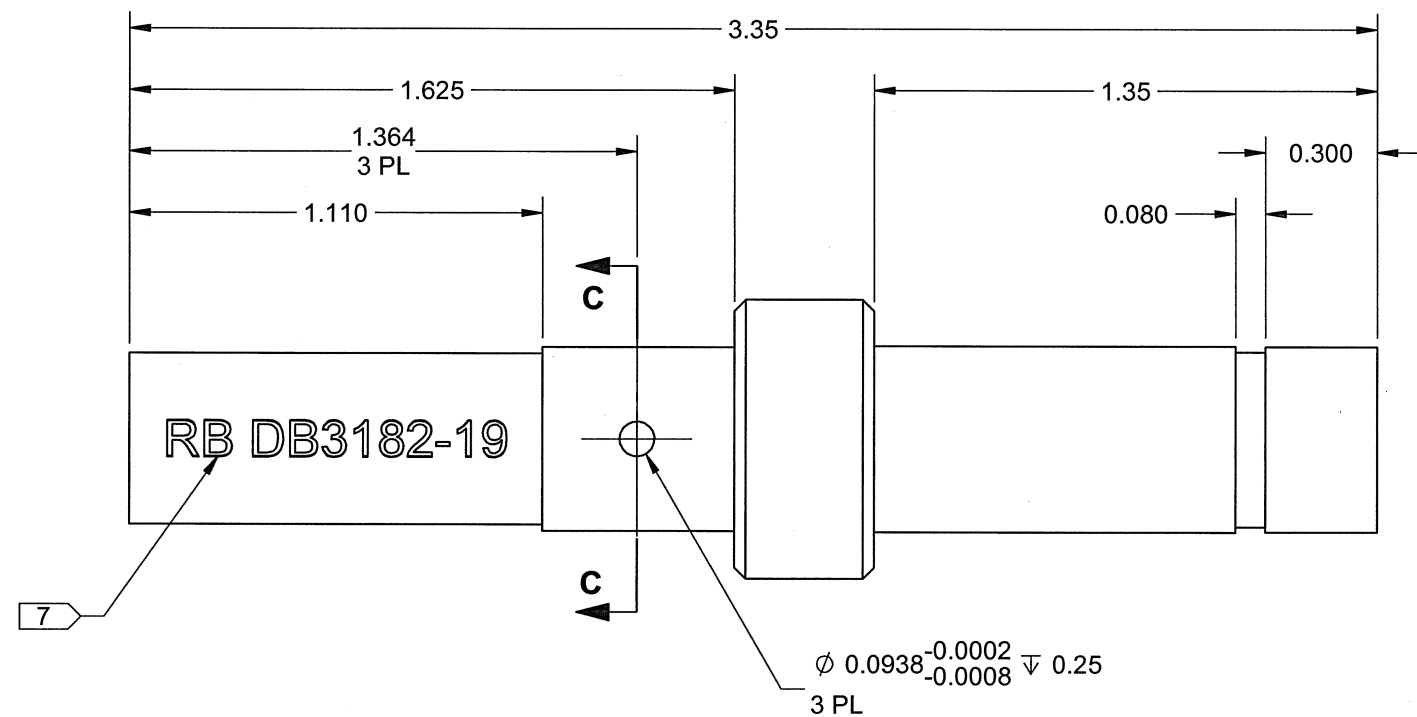
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
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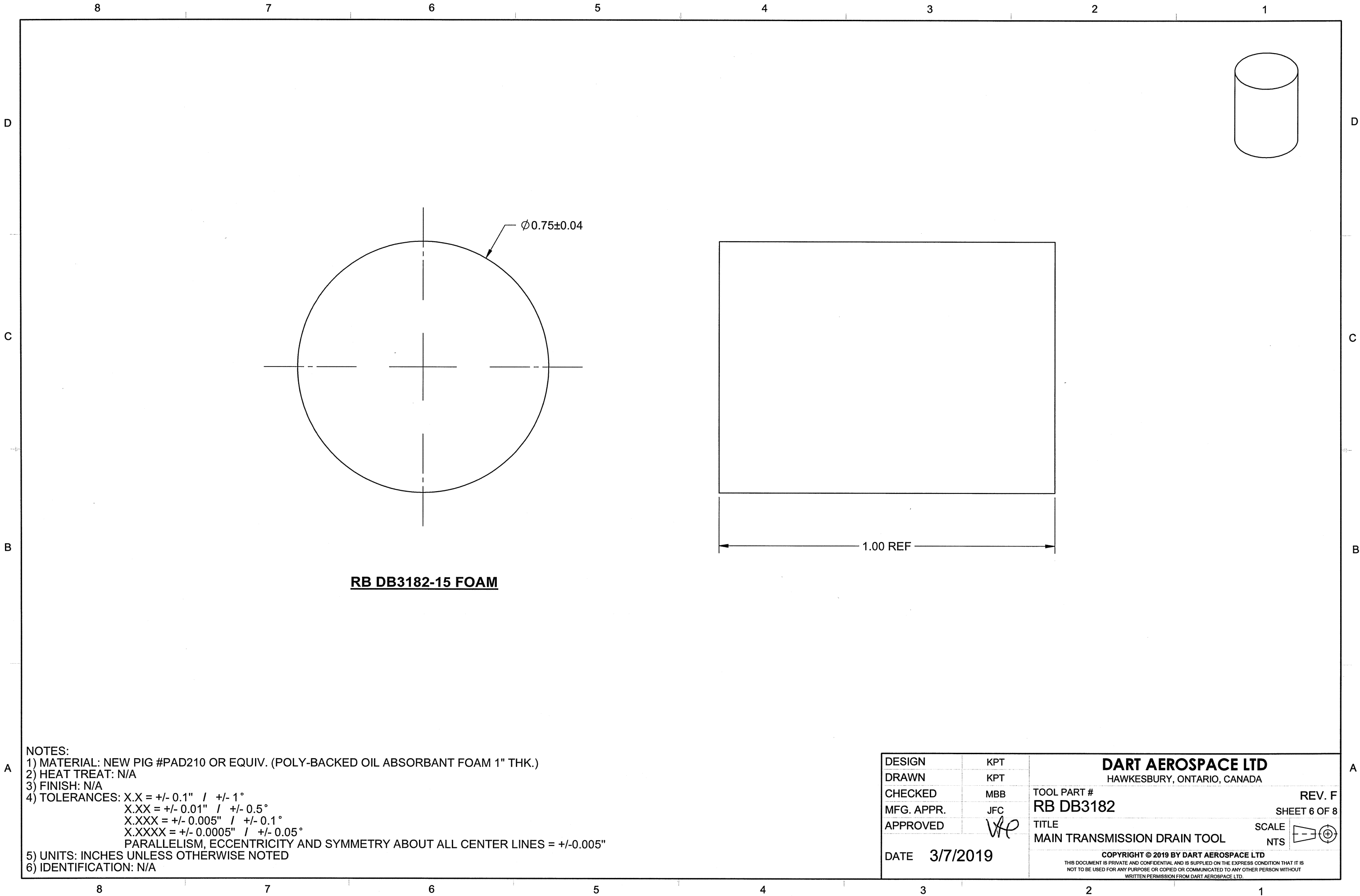


SECTION C-C

RB DB3182-3 QUILL

NOTES:
1) MATERIAL: 6061-T6 / 7075-T6
2) HEAT TREAT: N/A
3) FINISH: ANODIZE RED PER MIL-A-8625 TYPE 2 CLASS 2
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) REMOVE ALL SHARP EDGES AND BURRS
7) IDENTIFICATION: MACHINE ENGRAVE OR DOT MARK T/N AS SHOWN

DESIGN	KPT	DART AEROSPACE LTD	
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MBB	TOOL PART #	REV. F
MFG. APPR.	JFC	RB DB3182	SHEET 5 OF 8
APPROVED		TITLE	SCALE
		MAIN TRANSMISSION DRAIN TOOL	NTS 
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NOTES:
1) MATERIAL: NEW PIG #PAD210 OR EQUIV. (POLY-BACKED OIL ABSORBANT FOAM 1" THK.)
2) HEAT TREAT: N/A
3) FINISH: N/A
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/- 0.005"
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) IDENTIFICATION: N/A

DESIGN	KPT	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	KPT		
CHECKED	MBB	TOOL PART #	REV. F
MFG. APPR.	JFC	RB DB3182	SHEET 6 OF 8
APPROVED	<i>[Signature]</i>	TITLE	SCALE
		MAIN TRANSMISSION DRAIN TOOL	NTS
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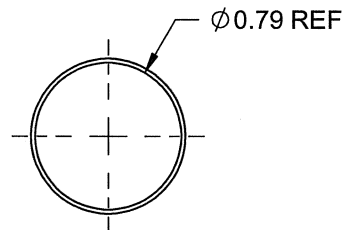
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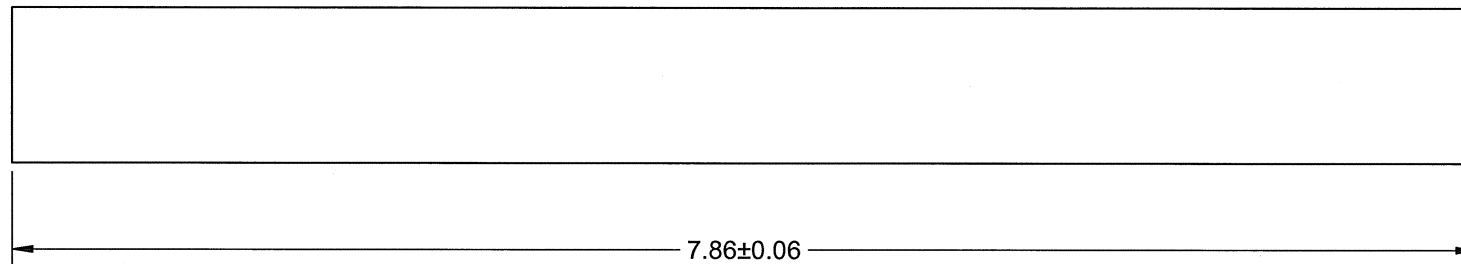
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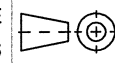


RB DB3182-17 TUBE



NOTES:

- 1) MATERIAL: McMaster#2044T45 OR EQUIV. (POLYETHYLENE PLASTIC SHIPPING TUBE 0.79" ID.)
- 2) HEAT TREAT: N/A
- 3) FINISH: N/A
- 4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
- 5) UNITS: INCHES UNLESS OTHERWISE NOTED
- 6) IDENTIFICATION: N/A

DESIGN	KPT	DART AEROSPACE LTD	
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MBB	TOOL PART #	REV. F
MFG. APPR.	JFC	RB DB3182	SHEET 7 OF 8
APPROVED		TITLE	SCALE
DATE	3/7/2019	MAIN TRANSMISSION DRAIN TOOL	NTS 
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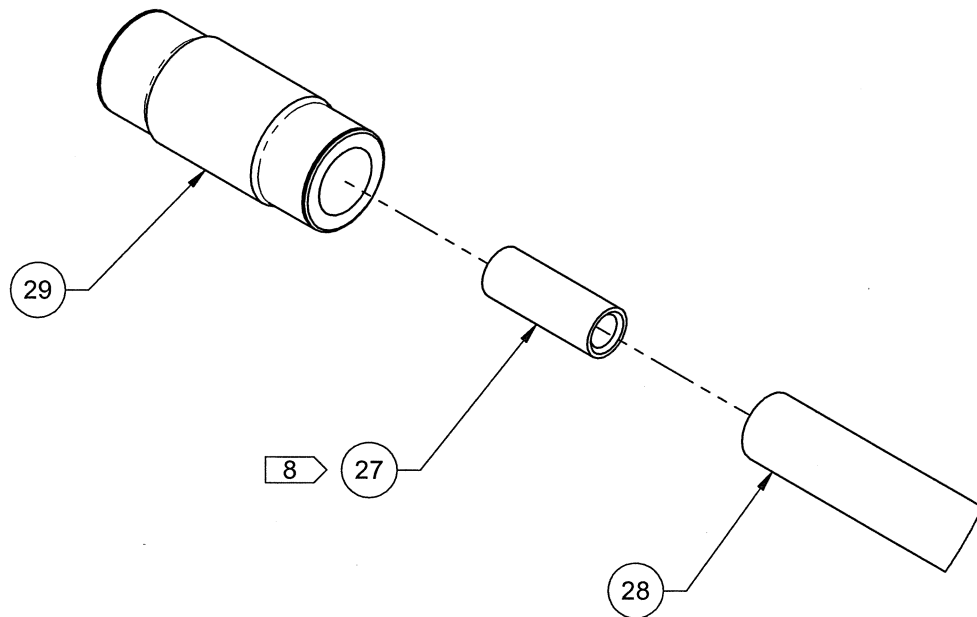
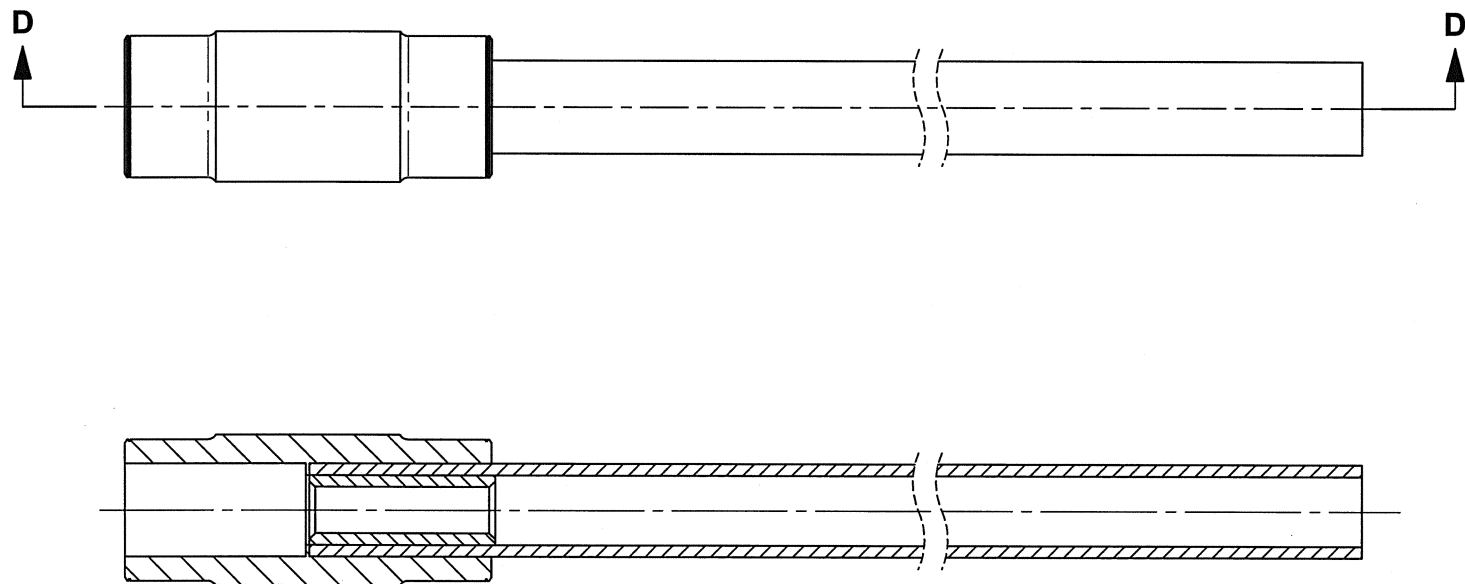
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A

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ITEM #	QTY	PART #	PART TITLE
27	1	DTSP10001	SLEEVE
28	1	Kuri-Tec#K010-0608 OR EQUIV.	CLEAR PVC TUBING 1/2" OD. X 3/8" ID. X 72" LG.
29	1	McMaster#51495K116 OR EQUIV.	NICKEL-PLATED BRASS PUSH-TO-CONNECT 1/2" OD. TUBE FITTING



RB DB3182-23 MAIN TRANSMISSION DRAIN TOOL HOSE ASSEMBLY

NOTES:
1) MATERIAL: N/A
2) HEAT TREAT: N/A
3) FINISH: N/A
4) TOLERANCES: X.X = +/- 0.1" / +/- 1°
X.XX = +/- 0.01" / +/- 0.5°
X.XXX = +/- 0.005" / +/- 0.1°
X.XXXX = +/- 0.0005" / +/- 0.05°
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = +/-0.005"
5) UNITS: INCHES UNLESS OTHERWISE NOTED
6) IDENTIFICATION: N/A
7) ASSEMBLE AS SHOWN
8) INSTALL ITEM 27 INTO ONE END OF ITEM 28 UNTIL FLUSH

DESIGN	KPT	DART AEROSPACE LTD	
DRAWN	KPT	HAWKESBURY, ONTARIO, CANADA	
CHECKED	MBB	TOOL PART #	REV. F
MFG. APPR.	JFC	RB DB3182	SHEET 8 OF 8
APPROVED		TITLE	SCALE
DATE	3/7/2019	MAIN TRANSMISSION DRAIN TOOL	NTS
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